

L34 ANSWER 1 OF 4 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. ON STN
DUPLICATE 1

AN 2002-11189 BIOTECHDS

TI Detection of *Helicobacter pylori*
catalase activity in biological samples for diagnosis
of *Helicobacter pylori* infection;
antibody and enzyme immobilization for bacterium disease

diagnosis

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AB DERMENT ABSTRACT:

NOVELTY - Diagnosis of *Helicobacter pylori*
infection by measurement of catalase activity in digestive
tract or feces specifically due to *Helicobacter*
pylori catalase.

DETAILED DESCRIPTION - Diagnosis of *Helicobacter*
pylori infection, comprising measurement of catalase
activity in digestive tract or feces specifically due to
Helicobacter pylori catalase. An INDEPENDENT
CLAIM is included for kits for the diagnostic method.

BIOTECHNOLOGY - Preferred Method: The *Helicobacter*
pylori catalase in the sample is separated from other
catalases by ion-exchange or an immunochemical method.

USE - The method is useful for simple and effective
detection of infection by *Helicobacter pylori*

EXAMPLE - Monoclonal antibody specific to

Helicobacter pylori catalase was immobilized
on a multiwell plate. A sample of feces (3g) was suspended in
phosphate buffer (12 ml) and centrifuged at 4 degrees C/3000 rpm for 15
minutes. The supernatant (0.2 ml/well) was added to the plate. After one
hour at room temperature the plate was washed and 5 mM hydrogen peroxide
(0.2 ml/well) was added. After one hour at room temperature, oxygen
evolution in the wells was measured using a Chemetrics K-7512 apparatus.
Oxygen evolution of 8-12 parts per million (ppm) or more was shown by
feces samples positive for the *Helicobacter catalase*,
while samples negative for the catalase had oxygen evolution
below 1 ppm. (18 pages)